STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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December 12, 2003

Mr. Orlando Monaco
Department of Navy
Engineering Field Activity-Northeast
Code 1823/OM
10 Industrial Highway, Mailstop 82
Lester, PA 19113-2090

Re: Building 95, Monitoring Event 17-April/May 2003
Naval Air Station, Brunswick, Maine

Dear Mr. Monaco:

The Maine Department of Environmental Protection (MEDEP) has reviewed the draft report entitled Monitoring Event 17 Report-April-May 2003 for Building 95, dated October 2003, prepared by EA Engineering, Science and Technology. Based on that review MEDEP has the following comments and issues.

General Comments:

1. MEDEP has the same comments regarding revisions to Section 1.1, Introduction for this monitoring event report as it did for Monitoring Event 16 (Comment letter dated 12/10/03, comments 1 and 3). Once that section has been satisfactorily revised please be sure to incorporate it into this report. (ED)

2. The history of sampling results at MW-NASB-097 (the only downgradient well with detectable levels of pesticides for nearly each monitoring event) relative to the elevation of the water table corresponding to each event suggests that higher levels of contamination occur at low water-table elevations. This is contrary to the prior hypothesis that a high water table would "free" and mobilize into groundwater more residual contaminants from the soil. At low water-table elevations documented in October 2001 and September 2002 the contour maps indicate a distinctly more easterly flow direction than for higher water-table conditions. The highest concentration of 4,4'-DDD and alpha chlorodane occurred in October 2001 and the highest concentration of heptachlor epoxide occurred in September 2002. This correlation between higher concentrations and lower water-table elevations assumes that contaminant migration from a local source area to this well is not so slow as to create an out-of-phase relationship. If this assumption is valid, MW-NASB-097 appears to be in the plume pathway at low water table, but may not be at medium to high water tables. (NR)

3. Chemical data presented in the recent Old Fuel Farm Groundwater Monitoring Report (draft October 2003) show that MTBE was present in MW-NASB-098 (part of the monitoring network for Building 95) three out of the last four sampling events as follows: 0.87J in October 2001, <1U in April 2002, 5.3 µg/L in September 2002, and 15 µg/L in April 2003. This increasing trend needs to be tracked and documented in succeeding reports, as the

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Maximum Exposure Guideline is 35 ppb. BTEX compounds, originally present in groundwater at the Old Fuel Farm, have not been detected at MW-NASB-098. According to the groundwater potentiometric contour map (Figure 8), this well is more cross gradient than downgradient of the Old Fuel Farm, the most obvious source area for MTBE. The Navy needs address the increasing trend of MTBE at MW-NASB-098 and what it thinks is the significance of this contaminant at this well relative to Building 95 groundwater and the known potential source area immediately to the northeast (Old Fuel Farm). (RR)

4. This report should briefly discuss why MW-NASB-97 was sampled April 1, 2003, instead of May for maleic hydrazide.

Specific Comments:

5. Section 1.2.1, Gauging Activities, p. 3:

As stated in MEDEP comments for Monitoring Event 16: It is noted that water levels were measured in "all wells at the Old Navy Fuel Farm ... to better identify groundwater flow". Data for 12 wells are given in Table 2, but Figure 3 (Interpreted Groundwater Potentiometric Surface Contour Map) only shows two of these wells. The other wells lie outside the figure boundaries. If any other well besides the two shown were used to interpret groundwater flow direction, the text should explain how this was done. If data from the other ten wells were not used to draw the contours, then the text needs to be revised and the information eliminated from Table 2. MEDEP believes that the best contouring will result by making use of most, or all, of the Old Fuel Farm monitoring wells. In this case, a figure should be presented in this report that shows the larger picture. (RR & ED)

6. Section 1.2.2, Results, p. 3:

Please reference Appendix E.1 and E.2 at the end of the first sentence. (ED)

7. Section 1.3.2, Sampling Activities, p. 3, last sentence in section:

"...(only well MW-NASB-097 was sampled for maleic hydrazide during the May 2003 sampling round)."

Since the sample for maleic hydrazide was collected on April 1, the date in the above sentence should be changed to "*April 2003 or spring 2003*". (ED)

8. Section 2.2.2, Groundwater Sampling Results, p. 5:

a.) 2nd Bullet – Please add the following language to this bullet: "*Maleic hydrazide was not detected above a laboratory detection limit of 4 µg/L in the April 1 sample collected at relatively high water-table conditions.*"

b.) 2nd Bullet 2nd para - "Sample results have been below corresponding Maximum Exposure Guidelines/Maximum Contaminant Levels since March 2000, with the exception of one exceedance of a alpha-chlordane noted during October 2001 and the exceedances of both alpha-chlordane and heptachlor epoxide during September 2002."

This statement is not accurate. Figure 14 in Appendix C shows that all but one of the six sample results for heptachlor epoxide exceeds the MEG of 0.04 µg/L. September 2002 had the highest concentration. Please correct this paragraph. (ED)

9. Section 3 Recommendations, p. 7, 2nd bullet:

   Please reference the request dated September 5, 2003, for the rationale rather than the August 30, 2002 Technical Memorandum, which was not concurred with by MEDEP.

10. Section 3 Recommendations, p. 7, 3rd bullet:

    "The current analytical requirements include: Target Compound List pesticides by EPA Method 8081."

    Please revise as follows: "Continue with ~~revisions to~~ the LTMP (May 2000), *as revised,* to reflect the current analtyical requirements for the site~~. The current analtyical requirements~~ *which* include*s* Target Compound List pesticides by EPA Method 8081. (ED)

11. Section 3 Recommendations, p. 7, 4th bullet:

    To be consistent please revise as follows: Generate a ~~status report~~ *Consensus Statement* on Building ...(ED)

12. Section 3 Recommendations, p. 7:

    Please add the following recommendation: Revise the LTMP to codify all the changes made to the monitoring program to date. (ED)

13. Figure 3, Interpreted Groundwater Potentiometric Surface Map:

    The 71.00-foot contour is drawn with a pronounced southward bend beginning at MW-NASB-068, which seems anomalous relative to the rest of the contours shown. Although MEDEP believes that the groundwater flow system likely did not have this abrupt local change in flow direction, the Navy has provided a legitimate strict interpretation of the collected data. As recommended in Specific Comment 5, the inclusion of the collected groundwater elevation data from the Old Fuel Farm into Figure 3 would aid in identifying anomalous data and result in a potentiometric map that more closely resembles prior contour maps. Please implement these recommendations and revise the report and figure, as necessary. (ED)

Thank you for the opportunity to review this report. If you have any questions or comments please call me at (207) 287-7713.

Respectfully,

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